

**STATE WATER RESOURCES CONTROL BOARD  
UNDERGROUND STORAGE TANK REGULATIONS  
TITLE 23, DIVISION 3, CHAPTER 16, CALIFORNIA CODE OF  
REGULATIONS**

**AMENDMENTS TO UNDERGROUND STORAGE TANK PERMITTING,  
INSPECTION, AND TRAINING REGULATIONS**

**TEXT OF REGULATIONS**

*Amend Title 23, Division 3, Chapter 16, of the California Code of Regulations to read as follows:*

**Article 1. Definition of Terms**

**§ 2611. Additional Definitions**

Unless the context requires otherwise, the following definitions shall apply to terms used in this chapter.

**“Best management practice” means any underground storage tank system management and operation practice which is the most effective and practicable method of preventing or reducing the probability of a release.**

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"Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metallic piping and **underground storage** tank systems. ~~The term includes only persons who~~ **Such a person shall obtain a current certification from the National Association of Corrosion Engineers or the International Code Council, demonstrating** ~~have~~ education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried **or submerged** metallic piping and **underground storage** tank systems.

"Corrosion specialist" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on ~~metal underground storage tanks and associated piping~~ **buried or submerged metallic piping and underground storage tank systems.** ~~The term includes only persons who have been~~ **Such a person shall obtain a current certification from** ~~certified by the National Association of Corrosion Engineers~~ **as a corrosion specialist, or be a** ~~registered professional engineers~~ **with a current certificate or license requiring** ~~who have certification or licensing that requires education and experience in corrosion control of underground storage tanks and associated piping~~ **buried or submerged metallic piping and underground storage tank systems.**

...

**“Designated Underground Storage Tank Operator” or “Designated UST Operator” means the individual designated by the owner to have responsibility for training facility employees and conducting monthly visual inspections at an underground storage tank facility. This individual is not considered the “Operator” as that term is defined in Chapter 6.7 of Division 20 of the Health and Safety Code, although the same individual may hold both positions.**

...

**“Facility employee” means an individual who is employed on-site at an underground storage tank facility, and who may be called upon to respond to spills, overfills, or other problems associated with the operation of the underground storage tank system.**

**“Fail safe” means that a monitoring system will shut down the turbine pump when the monitoring system fails or is disconnected.**

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**“Service technician” means any person who installs monitoring equipment or provides maintenance, service, system programming or diagnostics, calibration, or trouble-shooting for underground storage tank system components.**

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Authority cited: Sections 25299.3 and 25299.7, Health and Safety Code.  
Reference: Sections 25281, 25282, 25283, 25284, 25284.1, 25292.3 and 25299.5(a), Health and Safety Code; 40 CFR 280.10 and 280.12.

### **Article 3. New Underground Storage Tank Design, Construction, and Monitoring Requirements**

#### **§ 2630. General Applicability of Article.**

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(d) All monitoring equipment used to satisfy the requirements of this article shall meet the requirements of section 2643(f) and shall be installed and maintained such that the equipment is capable of detecting a leak at the earliest possible opportunity. Additionally, all monitoring equipment used to satisfy the requirements of this article shall be installed, calibrated, operated, and maintained in accordance with section ~~2637(b)~~. **2638.**

Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25281, 25284.1, 25291 and 25292.3, Health and Safety Code; 40 CFR 280.20.

**§ 2631.1. Compatibility and Permeability Testing Requirements for All New Underground Storage Tanks.**

- (a) Owners and operators must use an underground storage tank system made of materials that are compatible with the substance stored in the underground storage tank system.**
- (b) All underground storage tank system components installed on or after July 1, 2003 shall be approved by an independent testing organization in accordance with industry codes, voluntary consensus standards, or engineering standards. This approval should include a list of the compatible products tested and the measured product permeation rates.**
- (c) Owners and operators of underground storage tanks installed on or after July 1, 2003 must provide to the local agency, upon request, the results of product compatibility and permeability testing required pursuant to subdivision (a). These results should include a list of the compatible products tested and the measured product permeation rates.**

**Authority: Sections 25299.3 and 25299.7, Health and Safety Code.**  
**Reference: Sections 25281, 25284.1, 25286, 25291 and 25299, Health and Safety Code; 40 CFR 280.20, 280.32, 280.40-280.45.**

**§ 2635. Installation and Testing Requirements for All New Underground Storage Tanks.**

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- (d) Owners or their agents shall certify that the installation of the tanks and piping, meets the conditions in subdivision (1) through ~~(5)~~ **(4)** below. The certification shall be made on a "Certificate of Compliance for Underground Storage Tank Installation Form C" (see Appendix V).
  - (1) ~~The installer has been adequately trained as evidenced by a certificate of training issued by the tank and piping manufacturers. On and after July 1, 2001, this certification shall be renewed by completion of the manufacturer's refresher training at the time interval recommended by the manufacturer, or every 36 months, whichever is shorter~~ **has met the requirements set forth in section 2715, subdivisions (d) and (e).**
  - (2) ~~The installer has been certified or licensed by the Contractors State License Board.~~

- (3) (2) The underground storage tank, any primary piping, and any secondary containment, was installed according to applicable voluntary consensus standards and any manufacturer's written installation instructions;
- (4) (3) All work listed in the manufacturer's installation checklist has been completed; and
- (5) (4) The installation has been inspected and approved by the local agency, or, if required by the local agency, inspected and certified by a registered professional engineer who has education and experience with underground storage tank system installations.

Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25281, 25284.1, 25291 and 25299, Health and Safety Code; 40 CFR 280.20, 280.32, 280.40-280.45.

### **§ 2636. Design, Construction, Installation, Testing, and Monitoring Requirements for Piping.**

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(f) Underground piping with secondary containment, including under-dispenser piping with secondary containment, shall be equipped and monitored with monitoring systems as follows:

- (1) All secondary containment, including under-dispenser containment, and under-dispenser spill control or containment systems, shall be equipped with a continuous monitoring system that either activates an audible and visual alarm or stops the flow of product at the dispenser when it detects a leak.
- (2) **Within 6 months of the effective date of this paragraph**, automatic line leak detectors shall be installed on underground pressurized piping, and shall be capable of detecting a 3-gallon per hour leak rate at 10 psi within 1 hour with a probability of detection of at least 95 percent and a probability of false alarm no greater than 5 percent, **and shall restrict or shut off the flow of product through the piping when a leak is detected. Automatic line leak detectors installed on an emergency generator tank system may, in lieu of this requirement, activate an audible or visual alarm in the event of a leak or a malfunction of the leak detection system, provided that the monitoring system is checked at least daily, by either remote electronic access or on-site visual inspections. A log of daily checks shall be available for local agency review upon request.**
- ~~(3) Other monitoring methods may be used In lieu of the requirement in subdivision (2) if it is demonstrated to the satisfaction of the local agency that the alternate method is as effective as the methods otherwise required by this section. Continuous monitoring systems as described in subdivision (1), which shut down the pump in addition to either activating the audible and visual alarm or stopping the flow of~~

~~product at the dispenser satisfy the automatic line leak detector requirement of subdivision (2).~~

~~(4) (3) Monitoring shall be conducted on all underground pressurized piping with secondary containment at least annually at a pressure designated by the equipment manufacturer, provided that the method is capable of detecting a minimum release equivalent to 0.1 gallon per hour defined at 150 percent of the normal operating pressure of the product piping system at the test pressure with at least a 95 percent probability of detection and not more than a 5 percent probability of false alarm. This requirement is waived if the criteria in subsection (g) of this section are met.~~

**(4) Continuous monitoring systems as described in subdivision (f)(1) satisfy the annual tightness testing requirement of subdivision (f)(3) if both of the following conditions are met:**

**(A) The monitoring system shuts down the pump or stops the flow of product at the dispenser when a leak is detected in the under dispenser containment.**

**(B) The monitoring system for all product piping other than that contained in the under dispenser containment is fail safe, and shuts down the pump when a leak is detected.**

~~(g) Underground pressurized piping which meets all of the following requirements satisfies the annual tightness test requirements specified in subsection (f)(4):~~

~~(1) All secondary containment systems are equipped with continuous monitoring systems. The leak detection device may be located at the pump sump for sections of the piping that slope back to this point.~~

~~(2) All continuous monitoring systems for the piping are connected to the pumping system.~~

~~(3) All continuous monitoring systems for the piping shut down the pump and either activate an audible and visual alarm or stop the flow of product at the dispenser when they detect a leak.~~

~~(4) The pumping system shuts down automatically if any of the continuous monitoring systems for the piping fail or are disconnected.~~

~~(5) The requirements of subdivisions (3) and (4) do not apply to an emergency generator, provided the monitoring system is checked at least daily.~~

~~(h)(g) Under-dispenser containment shall be designed, constructed, and installed in accordance with the following:~~

(1) Owners or Operators of a UST system shall have the system fitted with under-dispenser containment, or an approved under-dispenser spill containment or control system according to the following schedule:

(A) At the time of installation for systems installed after January 1, 2000.

(B) By July 1, 2001, for systems installed after July 1, 1987 that are located within 1,000 feet of a public drinking water well, as identified pursuant to the state Geographic Information System mapping database.

(C) By December 31, 2003, for systems not subject to subsection 2636(h)(1)(A) or (B).

(2) Under-dispenser containment shall be designed, constructed, installed, and monitored in accordance with section 2631, 2636(c)(2), 2636(e), and 2636(f).

(3) A manufacturer of an under-dispenser spill containment or control system may apply to the Division of Clean Water Programs Underground Storage Tank Program Manager for approval of the system. Owners or operators shall not install an under-dispenser spill containment or control system that has not been approved.

(A) Applications for approval shall be submitted in writing and include the following:

(i) A description of the proposed system.

(ii) Clear and convincing evidence that the system will protect the soil and beneficial uses of the waters of the state from unauthorized releases.

(B) The Program Manager shall review the application to determine if the proposed system adequately protects the soil and beneficial uses of groundwater before determining whether to approve the proposed system.

(C) The Program Manager may modify or revoke a previously issued approval if it finds that, based on new evidence, the approved system does not adequately protect the soil and beneficial uses of groundwater from unauthorized releases.

Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25281, 25284.1 25291 and 25299, Health and Safety Code; and 40 CFR 280.20 and 280.40-280.45.

**§ 2636.1. Final Division Decisions Regarding Under-Dispenser Containment or Control Systems.**

(a) A manufacturer of an under-dispenser spill containment or control system who disagrees with a determination by the Program Manager not to approve the

manufacturer's system under section 2636(h)(g)(3)(B) or to modify or revoke a previously issued approval of the manufacturer's system under section 2636(h)(g)(3)(C) may ask for review by the Division Chief.

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Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Section 25284.1, Health and Safety Code.

**§ 2637. Secondary Containment Testing and Annual Maintenance Certification.**

- (a) Secondary containment systems installed on or after January 1, 2001 shall be tested upon installation, 6 months after installation, and every 36 months thereafter. Secondary containment systems installed prior to January 1, 2001 shall be tested by January 1, 2003 and every 36 months thereafter. ~~Secondary containment testing shall be conducted as follows:~~
- (1) **(b)** By December 31, 2002, the owner or operator of any secondary containment system that the owner or operator determines cannot be tested in accordance with this section shall replace the secondary containment system with a system that can be tested in accordance with this section. As an alternative, the owner or operator may submit a proposal and workplan for enhanced leak detection to the local agency in accordance with subdivisions 2644.1 (a)(1), (2), (4), and (5) by July 1, 2002; complete the program of enhanced leak detection by December 31, 2002; and replace the secondary containment system with a system that can be tested in accordance with this section by July 1, 2005. The local agency shall review the proposed program of enhanced leak detection within 45 days of submittal or re-submittal.
- (2) **(c)** Periodic testing of secondary containment systems shall be conducted using a test procedure that demonstrates that the system performs at least as well as it did upon installation. For example, if the secondary containment system was tested upon installation by using a test method that applied a pressure of 5 psi, then the periodic test must be conducted using a method that tests the system at an equivalent pressure. These tests shall be performed in accordance with manufacturer's guidelines or standards. If there are no manufacturer's guidelines or standards, secondary containment systems must be tested using an applicable method specified in an industry code or engineering standard. If there are no applicable manufacturers guidelines, industry codes, or engineering standards a test method approved by a state registered professional engineer shall be used.
- (3) **(d)** Secondary containment testing shall be performed by either **an installer meeting the requirements of sections 2715, subdivisions (d) and (e); a service technician meeting the requirements of section 2715, subdivision (f); or a licensed tank tester meeting the requirements of section 2715, subdivision (g).** ~~licensed tank tester, licensed tank installer, or any person meeting the requirements of subsection 2637(b)(1).~~

- (4) ~~(e)~~ **(f)** Underground storage tank owners and operators shall submit a copy of the test report to the local agency within 30 days of the completion of the test.
- (5) ~~(f)~~ **(g)** Owners and operators of underground storage tanks must notify the local agency at least 48 hours prior to conducting the test, unless this notification requirement is waived by the local agency.
- (6) ~~(g)~~ **(h)** Secondary containment systems where the continuous monitoring automatically monitors both primary and secondary containment, such as systems that are hydrostatically monitored or under constant vacuum, are exempt from periodic secondary containment testing.

Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25281, 25284.1, 25291 and 25292, Health and Safety Code; 40 CFR 280.41.

~~(b)~~

**§ 2638. Annual Certification of Monitoring Equipment**

**(a)** All monitoring equipment used to satisfy the requirements of this article shall be installed, calibrated, operated and maintained in accordance with manufacturer's instructions, and certified every 12 months for operability, proper operating condition, and proper calibration. Written records shall be maintained as required in section 2712. ~~On or after January 1, 2002 the following shall also apply:~~

~~(1)(b)~~ **(1)(b)** Persons performing installation, repair, maintenance, calibration, or annual certification of monitoring equipment shall meet the ~~following~~ requirements: **set forth in section 2715, subdivision (f) or (g).**

~~(A) Possess a current Class "A" General Engineering Contractor License, C-10 Electrical Contractor License, C-34 Pipeline Contractor License, C-36 Plumbing Contractor License, or C-61 (D40) Limited Specialty Service Station Equipment and Maintenance Contractor License issued by the Contractors State License Board.~~

~~(B) Be trained and certified by the manufacturer of the monitoring equipment; and,~~

~~(C) Be re-certified by the manufacturer by completion of a manufacturer's refresher course. Additionally, this certification shall be renewed at the time interval recommended by the manufacturer, or every 36 months, whichever is shorter.~~

~~(2) Individuals employed by persons performing installation, repair, maintenance, calibration, or annual certification of monitoring equipment for the purpose of conducting this work shall meet the requirements of 2637(b)(1)(B) and (C).~~

~~(3)~~ **(c)** Annual monitoring equipment certification shall be made on a “Monitoring System Certification” form (see Appendix VI).

~~(4)~~ **(d)** UST owners and operators shall submit a completed “Monitoring System Certification” form to the local agency within 30 days after completion of the inspection.

~~(5)~~ **(e)** The UST owner or operator shall notify the local agency at least 48 hours prior to conducting the installation, repair, replacement, calibration, or certification of monitoring equipment unless the notification requirement is waived by the local agency.

~~(6)~~ **(f)** A person conducting UST monitoring equipment certification shall affix a tag/sticker on each monitoring equipment component that is being certified, repaired, or replaced. The tag/sticker shall be placed in a readily visible location and shall include the date the UST component was certified, repaired, or replaced, and the contractor’s license number.

Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25281, 25284.1, 25291 and 25292, Health and Safety Code; 40 CFR 280.41.

**§ 2641. Monitoring Program Requirements.**

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(j) Equipment and devices used to monitor underground storage tanks shall be installed, calibrated, operated, and maintained in accordance with section ~~2637(b)~~ **2638**.

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Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Sections 25283, 25284.1, 25291 and 25292, Health and Safety Code; 40 CFR 280.40 and 280.41.

**§ 2643. Non-Visual Monitoring/Quantitative Release Detection Methods.**

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(f) Each quantitative release detection method, with the exception of manual inventory reconciliation and manual tank gauging, shall be certified to comply with the performance standard(s) specified in this section and shall be subject to limitations specified in the certification. This certification shall be obtained by the equipment manufacturer following one of the evaluation procedures in subdivisions (1) through (3) below:

(1) An independent third party testing laboratory shall evaluate and approve the method using the appropriate "EPA Standard Test Procedure" for leak detection equipment in Appendix IV; or,

(2) An independent third party testing laboratory shall evaluate and approve the method using a voluntary consensus standard that is intended for the method being evaluated; or,

(3) An independent third party testing laboratory shall evaluate and approve the method using a procedure deemed equivalent to an EPA procedure. Any resultant certification shall include a statement by the association or laboratory that the conditions under which the test was conducted were at least as rigorous as those used in the EPA standard test procedure. This certification shall include statements that:

(A) The method was tested under various conditions that simulate interferences likely to be encountered in actual field conditions (no fewer nor less rigorous than the environmental conditions used in the corresponding EPA test procedure);

(B) Each condition under which the method was tested was varied over a range expected to be encountered in 75 percent of the normal test cases;

(C) All portions of the equipment or method evaluated received the same evaluation;

(D) The amount of data collected and the statistical analysis are at least as extensive and rigorous as the data collected and statistical analysis used in the corresponding EPA test procedure and are sufficient to draw reasonable conclusions about the equipment or method being evaluated;

(E) The full-sized version of the leak detection equipment was physically tested; and

(F) The experimental conditions under which the evaluation was performed and the conditions under which the method was recommended for use have been fully disclosed and that the evaluation was not based solely on theory or calculation.

(4) The evaluation results referred to in subsections (f)(2) and (f)(3) shall contain the same information and shall be reported following the same general format as the EPA standard results sheet as any corresponding EPA test procedure.

**(5) Manufacturers of leak detection equipment shall provide results of product compatibility testing to the Division of Clean Water Programs Underground Storage Tank Program Manager, upon request. These results shall include a list of products that are compatible with the leak**

**detection equipment. Local agencies may require owners and operators to replace leak detection equipment that is determined by the Underground Storage Tank Program Manager to be incompatible with the product being stored, regardless of the date of installation.**

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Authority: Sections 25299.3 and 25299.7, Health and Safety Code.

Reference: Section **25291**, 25292, Health and Safety Code; 40 CFR 280.40-280.45.

#### **§ 2712. Permit Conditions**

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- (e) The local agency shall not renew an underground storage tank permit unless the underground storage tank has been inspected by the local agency or a special inspector within the previous three years and the inspection verified that the underground storage tank complied with the provisions of Article 3 or 4, as applicable, and with all existing permit conditions. The inspection shall be conducted as specified in **section 25288** ~~the appropriate subsection~~ of Chapter 6.7 of Division 20 of the Health and Safety Code. If the inspection indicates noncompliance, the local agency shall verify by a follow-up inspection that all required corrections have been implemented before renewing the permit.

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Authority: Health and Safety Code 25299.3, 25299.7

Reference: Sections 25284, 25285, 25286, 25288, 25289, 25293, and 25294, Health and Safety Code; 40 CFR 280.31(d), 280.33(f), 280.45, and 281.32(e)

#### **§ 2715. Certification, Licensing, and Training Requirements for Underground Storage Tank Owners, Operators, Installers, Service Technicians, and Inspectors.**

- (a) By July 1, 2004, owners of underground storage tank systems shall submit a signed statement, under penalty of perjury, to the local agency indicating that the owner understands and is in compliance with all regulatory and statutory requirements and identifying the designated UST operator for each facility owned. The owner shall inform the local agency of any change of designated UST operator within 30 calendar days of the change.**
- (b) By July 1, 2004, designated UST operators shall obtain a current certificate issued by the International Code Council indicating he or she has passed the operator exam. The designated UST operator shall perform monthly visual inspections of the underground storage tank system. The designated UST operator shall record all monthly visual inspections and maintain a copy on-site at the facility for inspection by local agency.**

**(c) By July 1, 2004, and annually thereafter, designated UST operators shall train facility employees in the proper operation and maintenance of the underground storage tank system. For facility employees hired on or after July 1, 2004, the initial training shall be conducted within 30 days of the date of hire.**

**(1) The training for facility employees must include, but is not limited to:**

**(A) The operation of the underground storage tank system in a manner consistent with the facility's best management practices.**

**(B) The facility employee's role with regard to the leak detection equipment.**

**(C) The facility employee's role with regard to spills and overfills**

**(D) Whom to contact for emergencies and leak detection alarms.**

**(2) At least one of the facility employees present during operating hours shall have current training.**

**(3) A list of facility employees who have been trained by the designated UST operator, including the dates of training, shall be maintained on-site and provided to the local agency upon request.**

**(d) Persons installing underground storage tank systems or components shall be certified or licensed by the Contractors State License Board.**

**(e) Individuals installing underground storage tank systems or components shall meet the following requirements, or work under the direct and personal supervision of an individual physically present at the work site who meets the following requirements:**

**(1) The individual has been adequately trained as evidenced by a certificate of training issued by the manufacturer(s) of the underground storage tank system components. On and after July 1, 2001, this certification shall be renewed by completion of manufacturer's refresher training at the time interval recommended by the manufacturer, or every 36 months, whichever is shorter.**

**(2) By July 1, 2004, the individual shall obtain a current underground storage tank system installer certificate from the International Code Council, indicating that the individual has passed the underground storage tank installer exam.**

**(f) Individuals performing the work of a service technician must meet the following requirements:**

- (1) Possess or be employed by a person who possesses a current Class “A” General Engineering Contractor License, C-10 Electrical Contractor License, C-34 Pipeline Contractor License, C-36 Plumbing Contractor License, or a C-61 (D40) Limited Specialty Service Station Equipment and Maintenance Contractor License issued by the Contractors State License Board, as applicable.**
- (2) Be trained and certified by the manufacturer of the equipment as follows:**
- (A) For service technicians conducting secondary containment testing pursuant to section 2637, subdivision (a)(3), this training and certification may be obtained through the developer of the testing equipment or method being used, or through the manufacturer of the component being tested, as applicable.**
- (B) For service technicians performing work on monitoring equipment, training and certification shall be obtained from the manufacturer of the leak detection equipment.**
- (C) In the event that no training and certification exists that would satisfy the criteria of this section, the local agency may approve comparable alternate training and certification.**
- (3) Renew all training and certifications issued by the manufacturer, through completion of a manufacturer’s refresher course, at the time interval recommended by the manufacturer, or every 36 months, whichever is shorter.**
- (4) By July 1, 2004, service technicians shall obtain a current certificate from the International Code Council, indicating he or she has passed the service technician exam.**
- (g) Individuals licensed by the Board as tank testers may perform the work of a service technician if they meet the requirements set forth in section 2715, subdivisions (f)(2) and (3).**
- (h) By January 1, 2005, local agency inspectors and special inspectors conducting underground storage tank system compliance inspections shall obtain a current inspector certificate issued by the Division of Clean Water Programs Underground Storage Tank Program Manager, or designee, indicating he or she has passed the inspector exam. Local agency inspectors hired on or after January 1, 2005, shall obtain this certification within 180 days from the date of hire.**

**Authority: Section 25299.3, Health and Safety Code.**

**Reference: Section 25281, 25284.1, Health and Safety Code; 40 CFR 280.20.**